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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,754	04/09/2004	Arnold R. Craven	P5630.0000/P029	8778

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EXAMINER

SAETHER, FLEMMING

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,754

Applicant(s)

CRAVEN, ARNOLD R.

Examiner

Flemming Saether

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Information Disclosure Statement

In regards to the IDS filed with the application, applicant should confirm the last reference listed thereon, US 5,558,097, since its subject matter does not appear related to the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7 and 11 are rejected under 35 U.S.C. 102(b) and being anticipated by Flückiger (US 6,068,303). Flückiger discloses a screw comprising a shank with a tip at one end and head (5) at an opposite end; a thread is provided on the shank (at 1) and a knurl (at 6) is provided between the thread and head which further includes a flute (8). There is provided a transition (at 4) between the knurl and thread.

Claim 12, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Searelle (US 877,131). Searelle discloses a screw comprising a shank with a tip (5) at one end and a head (2) at the other end with a circumferential lip (9); a thread (1) is provided on the shank; two flutes (4) are provided on the shank between the thread and head which inherently would include a transition section; and the head includes a rib (7) on a lower surface thereof.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-8, 10, 11-17, 24 and 25 (some alternatively) are rejected under 35 U.S.C. 103(a) as being unpatentable over Searelle in view of Jones (US 471,179). Searelle discloses a wood screw comprising a shank with a self-drilling tip (5) at one end and a head (2) at the other end including a circumferential lip (9), a thread (1), two flutes (4) between the thread and head extending to a neck of the screw inherently including a transition to the thread; and a rib (7) on a lower surface of the head. Searelle does not disclose a knurled portion between the thread and head. Jones also discloses a wood screw having a shank with a tip (a), a head (c) and a thread (b) but, in Jones there is further provided a knurled portion (d) located between the thread and head which inherently must include a transition. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the shank of Searelle with a knurled portion as disclosed in Jones in order to provide the screw of Searelle with a securement means to prevent slipping during rolling of the threads (see pg. 2, l. 11-20 in Jones). The "positive lock" as described in Jones would improve the rolling of the threads in Searelle by preventing the unwanted slipping of the rolling-dies. Once the combination was made, the skilled artisan would have recognized to use the

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screw in particle board and polymer or bulging material because those materials are well known for screw attachment and therefore when a screw is inserted in those materials the result of the particle and bulge displacement would be inherent since the structure is the same as that claimed.

Claims 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Searelle in view of Jones or Searelle alone as applied to claims 1 and 12 above, and further in view of Köing (US 5,772,379). Searelle does not disclose the first and second different ribs. Köing discloses a screw including first (8) and second (9) different ribs on the underside of a head (1) and further discloses the head having a circumferential lip (5) one of the ribs extending to the shank (see Figs. 4 and 5). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the underside of the head of Searelle with ribs as disclosed in Köing in order to provide an improved countersink means by improving the cutting action and chip as discussed in Köing.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flückiger or Searelle in view of Jones as applied to claim 7 above, and further in view of Farrell (US 4,653,244). Farrell teaches to provide the upper surface of a screw head with a roughened surface (at 18). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the screw of Flückiger or modified Searelle with a roughened surface as disclosed in Farrell so as to provide an improved

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adhesion surface for a joint compound or other covering material depending upon the application.

Claims 18, 19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Köing. Jones discloses a screw comprising a shank having a tip (a), a head (c), a thread (b) and, a knurled portion (d) between the head and thread with a transition but, does not disclose the underside of the head provided with a rib. Köing discloses a screw including first (8) and second (9) different ribs on the underside of a head (1) and further discloses the head having a circumferential lip (5) one of the ribs extending to the shank (see Figs. 4 and 5). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the underside of the head of Jones with ribs as disclosed in Köing in order to provide a countersink means. The countersink means would be advantageous in Jones to facilitate the formation of the countersink to allow the upper surface of the head to be flush with the surface.

Lastly, claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Köing as applied to claim 18 above, and further in view of Searelle. Searelle discloses a screw having a flute. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to provide the device of modified Jones with a flute as disclosed in Searelle to facilitate the removal of wood dust or chips

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to enable the screw to be used in harder woods which would impart greater versatility to the screw.

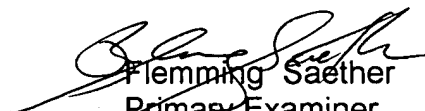
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 571-272-7071. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Flemming Saether
Primary Examiner
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